SAFETY DATA SHEET

1. Identification

Product identifier: Cream Hardener
Recommended use: Polymer Reaction Catalyst

Manufacturer/Importer/Supplier/Distributor information

Distributor
- Company name: Quality Hardener
- Address: PO Box 2385
  18576 Krause St.
  Riverview, MI 48193
- Phone: 1-734-285-1480
- Emergency Phone: Chemtrec 1-800-424-9300 (North America)
  1-703-527-3887 (International)

2. Hazard(s) identification

Physical hazards: Organic peroxides
Health hazards: Serious eye damage/eye irritation Category 2B
  Sensitization, skin Category 1
Environmental hazards: Hazardous to the aquatic environment, acute hazard
OSHA defined hazards: Not classified.

Label elements:
- Signal word: Warning
- Hazard statement: Heating may cause a fire. May cause an allergic skin reaction. Causes eye irritation. Very toxic to aquatic life.
- Precautionary statement:
  - Prevention: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep/Store away from clothing and other combustible materials. Keep only in original container. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.
  - Response: If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse. Collect spillage.
  - Storage: Protect from sunlight. Store at temperatures not exceeding 25°C / 77°F. Keep cool. Store away from other materials.
  - Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC):
None known.

Supplemental information:
30% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide</td>
<td></td>
<td>94-36-0</td>
<td>50 to &lt;60</td>
</tr>
<tr>
<td>Zinc Stearate</td>
<td></td>
<td>557-05-1</td>
<td>5 to &lt;10</td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate</td>
<td></td>
<td>7778-18-9</td>
<td>1 to &lt;5</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>40 to &lt;50</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.
4. First-aid measures

Inhalation: Call a physician if symptoms develop or persist.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed: Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed: Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures


Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards: Heating may cause a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling: When using do not smoke. Keep away from clothing and other combustible materials. Keep away from heat, sparks and open flame. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Keep only in the original container. Store away from other materials.
8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide (CAS 94-36-0)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate (CAS 7778-18-9)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Zinc Stearate (CAS 557-05-1)</td>
<td>PEL</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide (CAS 94-36-0)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate (CAS 7778-18-9)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Zinc Stearate (CAS 557-05-1)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide (CAS 94-36-0)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate (CAS 7778-18-9)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Zinc Stearate (CAS 557-05-1)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Total.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
### 9. Physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Form</td>
<td>Solid. Paste</td>
</tr>
<tr>
<td>Color</td>
<td>Red, White, Black, or Blue</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Upper/lower flammability or explosive limits**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Vapor pressure**

- 0.0002 hPa estimated

**Vapor density**

- Not available.

**Relative density**

- Not available.

**Solubility/ies**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility (water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Auto-ignition temperature**

- Not available.

**Decomposition temperature**

- 122 °F (50 °C) SADT

**Viscosity**

- Not available.

**Other information**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>9.98 lbs/gal</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>20 % estimated</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.2</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

**Reactivity**

- The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**

- Material is stable under normal conditions.

**Possibility of hazardous reactions**

- Hazardous polymerization does not occur.

**Conditions to avoid**

- Avoid heat, sparks, open flames and other ignition sources. Sunlight. Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.

**Incompatible materials**


**Hazardous decomposition products**

- No hazardous decomposition products are known.
11. Toxicological information

Information on likely routes of exposure

- **Inhalation**: No adverse effects due to inhalation are expected.
- **Skin contact**: May cause an allergic skin reaction.
- **Eye contact**: Causes eye irritation.
- **Ingestion**: Expected to be a low ingestion hazard.

**Symptoms related to the** Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May physical, chemical and cause an allergic skin reaction. Dermatitis. Rash.

**Toxicological characteristics**

**Information on toxicological effects**

**Acute toxicity**: May cause an allergic skin reaction.

- **Components**
  - **Species**
  - **Test Results**

<table>
<thead>
<tr>
<th>Benzoyl peroxide (CAS 94-36-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
</tr>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>Rat</td>
</tr>
<tr>
<td>7710 mg/kg</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation**: Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation**: Causes eye irritation.

**Respiratory or skin sensitization**

- **Respiratory sensitization**: Not a respiratory sensitizer.
- **Skin sensitization**: May cause an allergic skin reaction.

**Germ cell mutagenicity**: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

- This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

  **IARC Monographs. Overall Evaluation of Carcinogenicity**

  Benzoyl peroxide (CAS 94-36-0) **Not classifiable as to carcinogenicity to humans. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

  Not listed.

**Reproductive toxicity**: This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**: Not classified.

**Specific target organ toxicity - repeated exposure**: Not classified.

**Aspiration hazard**: Not an aspiration hazard.

12. Ecological information

**Ecotoxicity**: Very toxic to aquatic life.

- **Components**
  - **Species**
  - **Test Results**

<table>
<thead>
<tr>
<th>Calcium Sulfate Dihydrate (CAS 7778-18-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aquatic</strong></td>
</tr>
<tr>
<td><strong>Fish</strong></td>
</tr>
<tr>
<td>LC50</td>
</tr>
<tr>
<td>Fathead minnow (Pimephales promelas) &gt; 1970 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**: No data is available on the degradability of this product.

**Bioaccumulative potential**

- **Partition coefficient n-octanol / water (log Kow)**: 3.46
- **Mobility in soil**: No data available.

**Other adverse effects**: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
13. Disposal considerations

**Disposal instructions**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**
Dispose in accordance with all applicable regulations.

**Hazardous waste code**
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

**DOT**

- **UN number**: UN3108
- **UN proper shipping name**: ORGANIC PEROXIDE TYPE E, SOLID (<52% Dibenzoyl Peroxide as a paste) (Benzoyl peroxide)
- **Transport hazard class(es)**
  - **Class**: 5.2
  - **Subsidiary risk**: -
  - **Label(s)**: 5.2
- **Packing group**: Not applicable.
- **Environmental hazards**: Not applicable.
- **Marine pollutant**: Yes
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.

**IATA**

- **UN number**: UN3108
- **UN proper shipping name**: Organic peroxide type E, solid (<52% Dibenzoyl Peroxide as a paste)
- **Transport hazard class(es)**
  - **Class**: 5.2
  - **Subsidiary risk**: -
- **Packing group**: Not applicable.
- **Environmental hazards**: No.
- **ERG Code**: 5L
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Other information**
  - **Passenger and cargo aircraft**: Allowed.
  - **Cargo aircraft only**: Allowed.

**IMDG**

- **UN number**: UN3108
- **UN proper shipping name**: ORGANIC PEROXIDE TYPE E, SOLID (<52% Dibenzoyl Peroxide as a paste)
- **Transport hazard class(es)**
  - **Class**: 5.2
  - **Subsidiary risk**: -
  - **Packing group**: Not applicable.
- **Environmental hazards**: Marine pollutant Yes
- **EmS**: F-J,S-R
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Transport in bulk according to applicable**: Annex II of MARPOL 73/78 and the IBC Code
General information

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Zinc Stearate (CAS 557-05-1) Listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
<th>federal regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide</td>
<td>94-36-0</td>
<td>50 to &lt;60</td>
<td>Clean Air Act (CAA) Section 112 Hazardous Air</td>
</tr>
<tr>
<td>Zinc Stearate</td>
<td>557-05-1</td>
<td>5 to &lt;10</td>
<td></td>
</tr>
</tbody>
</table>

Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.

US. Massachusetts RTK - Substance List
Benzoyl peroxide (CAS 94-36-0)
Calcium Sulfate Dihydrate (CAS 7778-18-9)
Zinc Stearate (CAS 557-05-1)
US. New Jersey Worker and Community Right-to-Know Act
Benzoyl peroxide (CAS 94-36-0)
Calcium Sulfate Dihydrate (CAS 7778-18-9)
Zinc Stearate (CAS 557-05-1)

US. Pennsylvania Worker and Community Right-to-Know Law
Benzoyl peroxide (CAS 94-36-0)
Calcium Sulfate Dihydrate (CAS 7778-18-9)
Zinc Stearate (CAS 557-05-1)

US. Rhode Island RTK
Benzoyl peroxide (CAS 94-36-0)
Zinc Stearate (CAS 557-05-1)

US. California Proposition 65
WARNING: This product contains a chemical known to the State of California to cause cancer.
US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
C.I. Pigment Yellow 13 (CAS 5102-83-0) Listed: October 1, 1992

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date: 04-17-2015
Version #: 01

HMIS® ratings
Health: 2
Flammability: 0
Physical hazard: 0
Personal protection: D

NFPA ratings
Health: 2
Flammability: 0
Instability: 0

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